What is claimed is:

Subt B1

1. A method for inhibiting angiogenesis, comprising:

administering a nucleoside in an amount effective to inhibit angiogenesis, to a patient in need of such treatment.

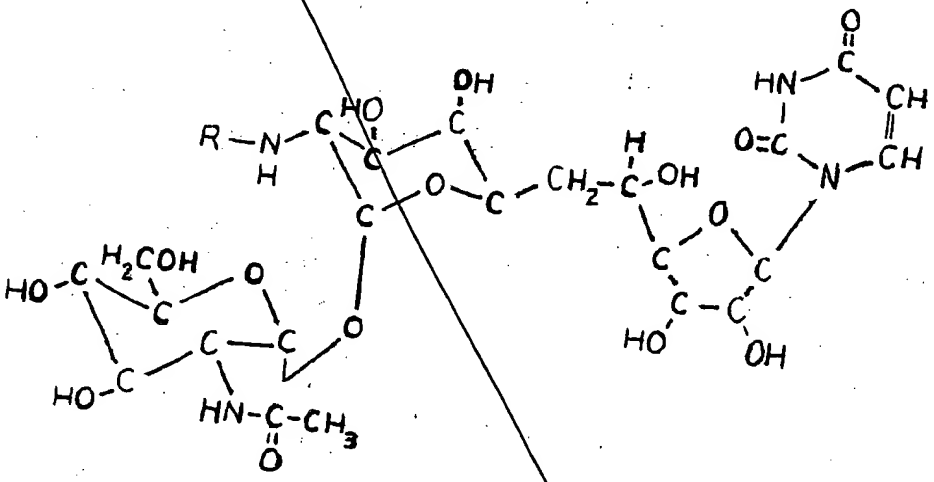
2. The method of claim 1, wherein the nucleoside comprises glucosamine.

3. The method of claim 1, wherein the nucleoside comprises N-acetylated glucosamine.

4. The method of claim 1, wherein the nucleoside comprises a pyrimidine nucleoside.

5. The method of claim 1, wherein the nucleoside comprises at least one of tunicamycin and functional derivatives thereof.

6. The method of claim 1, wherein the nucleoside is represented by the following formula (I):



(I)

where R may be: $(CH_3)_2$-CH-$(CH_2)_n$-CH=CH-(CO)-

where: n may be 1-12

α β unsaturated may be trans or cis;

CH_3-$(CH_2)_w$-CH=CH-(CO)-

where: w may be 1-12

α β unsaturated may be trans or cis;

C_xH_{2x+1}-CH=CH-(CO)-

where: x may be 1-30

α β unsaturated may be trans or cis;

$(CH_3)_2$-CH-$(CH_2)_y$-(CO)-

where: y may be 1-12

α β unsaturated may be trans or cis; or

CH_3-$(CH_2)_z$-(CO)-

where: z may be 1-12

α β unsaturated may be trans or cis.

7. The method of claim 1, wherein the nucleoside comprises at least one of tunicamycin homologues A_1, A_2, B_1, B_2, C_1, C_2, D_1, and D_2.

8. The method of claim 1, wherein the nucleoside is administered for a period of time, subsequently the administration of the nucleoside is suspended for a period of time of at least about 1 week, and subsequently the administration of the nucleoside is resumed.

9. The method of claim 5, wherein the at least one of tunicamycin and functional derivatives thereof is administered for a period of time, subsequently the administration of the at least one of tunicamycin and functional derivatives thereof is suspended for a period of time of at least about 1 week, and subsequently the administration of the at least one of tunicamycin and functional derivatives thereof is resumed.

10. The method of claim 1, wherein the nucleoside is administered for a period of about 1 week to 6 months.

11. The method of claim 1, wherein the nucleoside is administered for a period of about 1 week to 6 months, subsequently the administration of the nucleoside is suspended for a period of about 1 week to 1 year, and subsequently the nucleoside is administered for a period of about 1 week to 6 months.

12. The method of claim 1, wherein the nucleoside is administered daily in a dosage of about 5 to 20 mg/kg of body weight.

13. The method of claim 1, wherein the nucleoside is administered for a period of about 1 week to 6 months at a daily dosage of about 5 to 20 mg/kg of body weight, subsequently the administration of the nucleoside is suspended for a period of about 1 week to 6 months, and subsequently the nucleoside is administered for a period of about 1 week to 6 months at a daily dosage of about 5 to 20 mg/kg of body weight.

14. The method of claim 13, wherein the nucleoside comprises at least one of tunicamycin and functional derivatives thereof.

15. The method of claim 1, wherein the patient in need of such treatment has at least one of diabetic retinopathy, atherosclerotic plaques, scleroderma, hypertrophic scarring, vascular adhesions, angiofibroma, trachoma graft neovascularization, corneal graft neovascularization, neovascular glaucoma, thrombosis, restenosis, osteoporosis, macular degeneration, arthritis, hemangiomas, psoriasis, and a tumor.

16. A method for inhibiting angiogenesis, comprising:

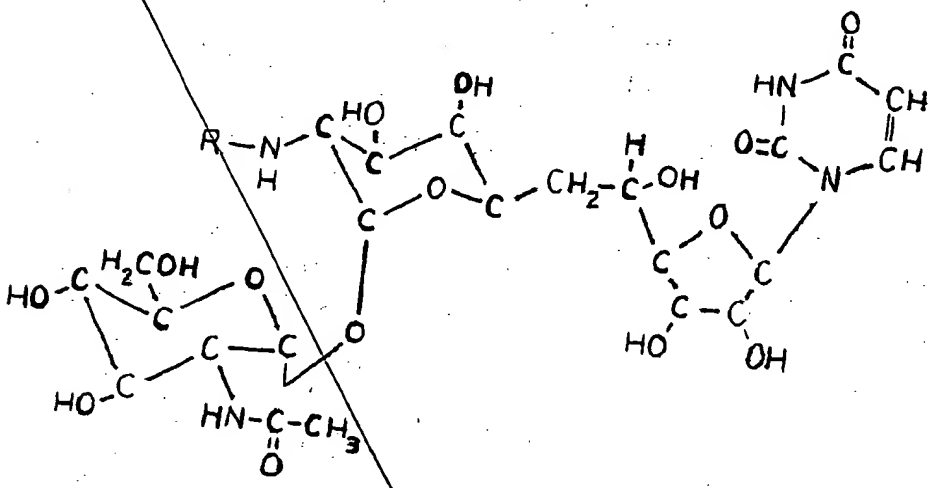
administering a nucleoside, which comprises glucosamine, in an amount effective to inhibit angiogenesis, to a patient in need of such treatment;

wherein the nucleoside is administered for a period of time, subsequently the administration of the nucleoside is suspended for a period of time of at least about 1 week, and subsequently the administration of the nucleoside is resumed.

17. A method for inhibiting angiogenesis, comprising:

administering a nucleoside in an amount effective to inhibit angiogenesis, to a patient in need of such treatment;

wherein the nucleoside is represented by the following formula (I):



(I)

where R may be: $(CH_3)_2$-CH-$(CH_2)_n$-CH=CH-(CO)-

where: n may be 1-12

α β unsaturated may be trans or cis;

CH_3-$(CH_2)_w$-CH=CH-(CO)-

where: w may be 1-12

α β unsaturated may be trans or cis;

C_xH_{2x+1}-CH=CH-(CO)-

where: x may be 1-30

α β unsaturated may be trans or cis;

$(CH_3)_2$-CH-$(CH_2)_y$-(CO)-

where: y may be 1-12

α β unsaturated may be trans or cis; or

$CH_3(CH_2)_z$-(CO)-

where: z may be 1-12

α β unsaturated may be trans or cis;

wherein the nucleoside is administered for a period of time, subsequently the administration of the nucleoside is suspended for a period of time of at least about 1 week, and subsequently the administration of the nucleoside is resumed.

18. A method for inhibiting angiogenesis, comprising:

administering tunicamycin in an amount effective to inhibit angiogenesis, to a patient in need of such treatment;

wherein the tunicamycin is administered for a period of about 1 week to 6 months at a daily dosage of about 5 to 20 mg/kg of body weight, subsequently the administration of the tunicamycin is suspended for a period of about 1 week to 6 months, and subsequently the tunicamycin is administered for a period of about 1 week to 6 months at a daily dosage of about 5 to 20 mg/kg of body weight.

19. A method for inhibiting angiogenesis, comprising:

administering an N-glycosylation inhibitor, which is not amphomycin, in an amount effective to inhibit angiogenesis, to a patient in need of such treatment.

20. The method of claim 19, wherein the N-glycosylation inhibitor blocks the dolichol pathway.

21. The method of claim 19, wherein the N-glycosylation inhibitor is not a peptide.

22. The method of claim 19, wherein the N-glycosylation inhibitor is diffusible into cells.

23. The method of claim 19, wherein the N-glycosylation inhibitor is cell permeable.

24. The method of claim 19, wherein N-glycosylation of Factor VIII:C is inhibited.

25. The method of claim 19, wherein the N-glycosylation inhibitor is administered for a period of time, subsequently the administration of the N-glycosylation inhibitor is suspended for a period of time of at least about 1 week, and subsequently the administration of the N-glycosylation inhibitor is resumed.

26. The method of claim 19, wherein the N-glycosylation inhibitor is administered for a period of about 1 week to 6 months, subsequently the administration of the N-glycosylation inhibitor is suspended for a period of about 1 week to 1 year, and subsequently the N-glycosylation inhibitor is administered for a period of about 1 week to 6 months.

27. The method of claim 19, wherein the N-glycosylation inhibitor is administered daily in a dosage of about 5 to 20 mg/kg of body weight.

28. A method for inhibiting angiogenesis, comprising:

administering an agent which induces ER stress in capillary endothelial cells in an amount effective to inhibit angiogenesis, to a patient in need of such treatment.

29. The method of claim 28, wherein the agent is administered for a period of time, subsequently the administration of the agent is suspended for a period of time of at least about 1 week, and subsequently the administration of the agent is resumed.

30. The method of claim 28, wherein the agent is administered for a period of about 1 week to 6 months, subsequently the administration of the agent is suspended for a period of about 1 week to 1 year, and subsequently the agent is administered for a period of about 1 week to 6 months.

31. The method of claim 28, wherein the agent is administered daily in a dosage of about 5 to 20 mg/kg of body weight.

32. A method for inhibiting angiogenesis, comprising:

administering an agent, which induces unfolded protein response, in an amount effective to inhibit angiogenesis, to a patient in need of such treatment.

33. The method of claim 32, wherein the agent is cell permeable.

34. The method of claim 32, wherein the agent is freely diffusible into cells.

35. The method of claim 32, wherein the agent is administered for a period of time, subsequently the administration of the agent is suspended for a period of time of at least about 1 week, and subsequently the administration of the agent is resumed.

36. The method of claim 32, wherein the agent is administered for a period of about 1 week to 6 months, subsequently the administration of the agent is suspended for a period of about

1 week to 1 year, and subsequently the agent is administered for a period of about 1 week to 6 months.

37. The method of claim 32, wherein the agent is administered daily in a dosage of about 5 to 20 mg/kg of body weight.

38. A method for inhibiting angiogenesis, comprising:

administering an agent which inhibits the dolichol pathway in an amount effective to inhibit angiogenesis, to a patient in need of such treatment, wherein the agent is not amphomycin.

39. The method of claim 38, wherein the agent is not a peptide.

40. The method of claim 38, wherein the agent is administered for a period of time, subsequently the administration of the agent is suspended for a period of time of at least about 1 week, and subsequently the administration of the agent is resumed.

41. The method of claim 38, wherein the agent is administered for a period of about 1 week to 6 months, subsequently the administration of the agent is suspended for a period of about 1 week to 1 year, and subsequently the agent is administered for a period of about 1 week to 6 months.

42. The method of claim 38, wherein the agent is administered daily in a dosage of about 5 to 20 mg/kg of body weight.

43. A method for inhibiting angiogenesis, comprising:

administering a $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor, which is not amphomycin, in an amount effective to inhibit angiogenesis, to a patient in need of such treatment.

44. The method of claim 43, wherein the $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor is not a peptide.

45. The method of claim 43, wherein the $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor is administered for a period of time, subsequently the administration of the $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor is suspended for a period of time of at least about 1 week, and subsequently the administration of the $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor is resumed.

46. The method of claim 43, wherein the $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor is administered for a period of about 1 week to 6 months, subsequently the administration of the $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor is suspended for a period of about 1 week to 1 year, and subsequently the $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor is administered for a period of about 1 week to 6 months.

47. The method of claim 43, wherein the $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor is administered daily in a dosage of about 5 to 20 mg/kg of body weight.

48. A method for inhibiting angiogenesis, comprising:

administering GlcNAc-1P transferase inhibitor in an amount effective to inhibit angiogenesis, to a patient in need of such treatment.

49. The method of claim 48, wherein the GlcNAc-1P transferase inhibitor is freely diffusible into cells.

50. The method of claim 48, wherein the GlcNAc-1P transferase inhibitor is cell permeable.

51. The method of claim 48, wherein the GlcNAc-1P transferase inhibitor is administered for a period of time, subsequently the administration of the GlcNAc-1P transferase inhibitor is suspended for a period of time of at least about 1 week, and subsequently the administration of the GlcNAc-1P transferase inhibitor is resumed.

52. The method of claim 48, wherein the GlcNAc-1P transferase inhibitor is administered for a period of about 1 week to 6 months, subsequently the administration of the GlcNAc-1P transferase inhibitor is suspended for a period of about 1 week to 1 year, and subsequently the GlcNAc-1P transferase inhibitor is administered for a period of about 1 week to 6 months.

53. The method of claim 48, wherein the GlcNAc-1P transferase inhibitor is administered daily in a dosage of about 5 to 20 mg/kg of body weight.

54. A method for inhibiting angiogenesis, comprising:

administering an agent which reduces Dol-P-Man synthase activity in vivo in an amount effective to inhibit angiogenesis, to a patient in need of such treatment.

55. The method of claim 54, wherein the agent is freely diffusible into cells.

56. The method of claim 54, wherein the agent is administered for a period of time, subsequently the administration of the agent is suspended for a period of time of at least about 1 week, and subsequently the administration of the agent is resumed.

57. The method of claim 54, wherein the agent is administered for a period of about 1 week to 6 months, subsequently the administration of the agent is suspended for a period of about 1 week to 1 year, and subsequently the agent is administered for a period of about 1 week to 6 months.

58. The method of claim 54, wherein the agent is administered daily in a dosage of about 5 to 20 mg/kg of body weight.

59. A method for inhibiting angiogenesis, comprising:

administering a non-peptide, which arrests the cell cycle of capillary endothelial cells in G1 phase, in an amount effective to inhibit angiogenesis, to a patient in need of such treatment.

60. The method of claim 59, wherein the non-peptide is administered for a period of time, subsequently the administration of the non-peptide is suspended for a period of time of at least about 1 week, and subsequently the administration of the non-peptide is resumed.

61. The method of claim 59, wherein the non-peptide is administered for a period of about 1 week to 6 months, subsequently the administration of the non-peptide is suspended for a period of about 1 week to 1 year, and subsequently the non-peptide is administered for a period of about 1 week to 6 months.

62. The method of claim 59, wherein the non-peptide is administered daily in a dosage of about 5 to 20 mg/kg of body weight.

63. A method for inhibiting angiogenesis, comprising:

administering a non-peptide, which induces apoptosis in capillary endothelial cells, in an amount effective to inhibit angiogenesis, to a patient in need of such treatment.

64. The method of claim 63, wherein the agent is administered for a period of time, subsequently the administration of the agent is suspended for a period of time of at least about 1 week, and subsequently the administration of the agent is resumed.

65. The method of claim 63, wherein the non-peptide is administered for a period of about 1 week to 6 months, subsequently the administration of the non-peptide is suspended for a period of about 1 week to 1 year, and subsequently the non-peptide is administered for a period of about 1 week to 6 months.

66. The method of claim 63, wherein the non-peptide is administered daily in a dosage of about 5 to 20 mg/kg of body weight.

67. A method for inhibiting angiogenesis, comprising:

inducing accumulation of immunopositive Factor VIII:C in capillary endothelial cells to inhibit angiogenesis in a patient in need of such treatment.

68. The method of claim 67, wherein the inducing comprises administering an agent which is cell permeable.

69. The method of claim 68, wherein the agent is freely diffusible into cells.

70. The method of claim 68, wherein the agent is administered for a period of time, subsequently the administration of the agent is suspended for a period of time of at least about 1 week, and subsequently the administration of the agent is resumed.

71. The method of claim 68, wherein the agent is administered for a period of about 1 week to 6 months, subsequently the administration of the agent is suspended for a period of about 1 week to 1 year, and subsequently the agent is administered for a period of about 1 week to 6 months.

72. The method of claim 68, wherein the agent is administered daily in a dosage of about 5 to 20 mg/kg of body weight.

73. A method for inhibiting angiogenesis, comprising:

administering an agent, which inhibits the dolichol pathway, in an amount effective to inhibit angiogenesis, to a patient in need of such treatment, wherein the agent is cell permeable.

74. The method of claim 73, wherein the agent is freely diffusible into cells.

75. The method of claim 73, wherein the agent is administered for a period of time, subsequently the administration of the agent is suspended for a period of time of at least about 1 week, and subsequently the administration of the agent is resumed.

76. The method of claim 73, wherein the agent is administered for a period of about 1 week to 6 months, subsequently the administration of the agent is suspended for a period of about 1 week to 1 year, and subsequently the agent is administered for a period of about 1 week to 6 months.

77. The method of claim 73, wherein the agent is administered daily in a dosage of about 5 to 20 mg/kg of body weight.

78. A method for inhibiting angiogenesis, comprising:

administering a $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor, which is cell permeable, in an amount effective to inhibit angiogenesis, to a patient in need of such treatment.

79. The method of claim 78, wherein the $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor is freely diffusible into cells.

80. The method of claim 78, wherein the $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor is administered for a period of time, subsequently the administration of the $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor is suspended for a period of time of at least about 1 week, and subsequently the administration of the $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor is resumed.

81. The method of claim 78, wherein the agent is administered for a period of about 1 week to 6 months, subsequently the administration of the $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor is suspended for a period of about 1 week to 1 year, and subsequently the $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor is administered for a period of about 1 week to 6 months.

82. The method of claim 78, wherein the $Glc_3Man_9GlcNAc_2$-PP-Dol biosynthesis inhibitor is administered daily in a dosage of about 5 to 20 mg/kg of body weight.

83. A method for inhibiting angiogenesis, comprising:

administering an agent which is cell permeable in an amount effective to inhibit angiogenesis, to a patient in need of such treatment to induce apoptosis in capillary endothelial cells.

84. The method of claim 83, wherein the agent is freely diffusible into cells.

85. The method of claim 83, wherein the agent is administered for a period of time, subsequently the administration of the agent is suspended for a period of time of at least about 1 week, and subsequently the administration of the agent is resumed.

86. The method of claim 83, wherein the agent is administered for a period of about 1 week to 6 months, subsequently the administration of the agent is suspended for a period of about 1 week to 1 year, and subsequently the agent is administered for a period of about 1 week to 6 months.

87. The method of claim 83, wherein the agent is administered daily in a dosage of about 5 to 20 mg/kg of body weight.

88. A method for inhibiting angiogenesis, comprising:

administering a cell permeable agent in an amount effective to inhibit angiogenesis, to a patient in need of such treatment to reduce intratumoral microvascular density.

89. The method of claim 88, wherein the cell permeable agent is freely diffusible into cells.

90. The method of claim 88, wherein the cell permeable agent is administered for a period of time, subsequently the administration of the cell permeable agent is suspended for a period of time of at least about 1 week, and subsequently the administration of the cell permeable agent is resumed.

91. The method of claim 88, wherein the cell permeable agent is administered for a period of about 1 week to 6 months, subsequently the administration of the cell permeable agent is suspended for a period of about 1 week to 1 year, and subsequently the cell permeable agent is administered for a period of about 1 week to 6 months.

92. The method of claim 88, wherein the cell permeable agent is administered daily in a dosage of about 5 to 20 mg/kg of body weight.